REMARKS

Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajaniemi (International Pub. No. WO 00/31988) in view of Weaver (Patent No. 5,680,395). The Examiner states that Rajaniemi teaches a method/apparatus of prioritizing a plurality of cells in a neighbor list of a cell in an active set (page 4, lines 5-12), including when the plurality of cells have been added to the active set (page 4, lines 31-38) a predetermined amount of times, prioritizing the plurality of cells in the neighbor list (page 4, lines 15-21).

Applicant respectfully disagrees. The cell priorities defined in Rajaniemi differ from the prioritization of cells defined in the claims 1 and 10 of the present invention in at least the following ways:

First, the cell priorities in Rajaniemi are assigned to the cells in the active set (i.e. those cells with which the mobile station is currently communicating). The method and apparatus of the present invention prioritizes cells in a neighbor list of a cell in an active set. Specifically, Rajaniemi Page 4, Lines 15-21 defines a partitioning of the active set cells into a serving set. The serving set and active set are not the same as the neighbor list as recited in claims 1 and 10 (Claims 1 & 10; also Page 3, Lines 11-15).

Second, the cell priorities in Rajaniemi are determined based upon the static architecture of the cellular system. (e.g. the serving cell set contains the cells under the control of the serving RNC; the remaining cells are those not under the control of the serving RNC). The invention recited in claims 1 and 10 prioritizes cells within the neighbor list based upon the number of times the cells have been added to the active set (i.e., tracking an amount of times the cell of the plurality of cells in the neighbor list of a cell in an active set is added to the active set). Rajaniemi (Page 4, Lines 31-38) specifies that a cell, upon being added to the active set, is placed into the serving cell set based upon the cell being under the control of the serving RNC (SRNC) or not.

Third, the priorities in Rajaniemi are really grouping of cells into service categories such that serving set cells are used to perform mobile registration, call origination, etc. (Page 4, Lines 23-27). The invention of claims 1 and 10

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however, prioritizes neighbor list cells based upon the addition of these cells to the active set during the ongoing operation of the system.

The Examiner states that Rajaniemi teaches the invention but fails to teach tracking an amount of times the cell of the plurality of cells is added to the active set; tracking an amount of time any cell of the plurality of cells is added to the active set. The Examiner, however, cites Weaver (col. 9, lines 55-65; col. 10, lines 1-15 and col. 11, lines 4-15) as disclosing these steps. Applicant respectfully disagrees.

Weaver (Col 9, lines 55-65, Col 10, Lines 1-15, Col 11, Lines 4-15) describes a method of time tracking needed to synchronize pilot signal offset within the transmitted pilot signal. Accurate pilot signal offset transmission is required because all signals are time aligned with the pilot offset of other base stations in the cellular system. Weaver discloses time tracking circuitry (FIG. 4). The time tracking disclosed by weaver is totally unrelated to tracking the number of times a cell is added to the active set as recited in claims 1 and 10.

Claims 2-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajaniemi in view of Weaver and further in view of Kusaka (Published No. 2001/0026542). In particular, the Examiner cites Kusaka (Abstract, Page 1, Paragraph 14; Page 2, paragraphs 15-17; page 3, paragraphs 40, 45; page 4, paragraphs 56, 57, 60, 64-66) as disclosing all of the steps of method claim 9. Applicant respectfully disagrees. The paragraphs set forth below contrast the teachings of the cites sections of Kusaka and the invention of claim 8

Kusaka Abstract and page 1, paragraph 14 describes a method to prevent the mobile station from immediately performing a hand-off when a base station is found with signal strength greater than a second base station. Claim 8 of the present invention provides a method for prioritizing the cells in the neighbor list and does not delay a hand-off.

Kusaka page 2, paragraphs 15-17 and page 3, paragraph 40 describe a method of controlling hand-off by recording the signal strength of a base station and then performing a hand-off immediately or delaying the hand-off to perform further verification of the base station (confirmation target). The invention of

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claim 8 provides a method for prioritizing the cells in the neighbor list and does not delay or hasten a hand-off.

Kusaka Page 3, paragraph 45 describes a method of controlling the number of times a neighbor list is searched before searching for a confirmation target. The priority order of the cells in the neighbor list is unchanged. The invention of claim 8 provides a method for prioritizing the cells in the neighbor list

Kusaka page 4, paragraphs 56, 57 and 60 describe the base station search in "normal mode." In this case, depending on the measured signal strength, an immediate hand-off is triggered or an additional base station is selected and searched. The invention of claim 8 provides a method for ordering the cells in the neighbor list and does not delay or hasten a hand-off.

Kusaka page 4, paragraphs 64-66 describe the base station search in "confirmation mode." In this case, a counter is kept that records the number of times the searched base stations have a signal strength greater than the active base station. The counter is then used to determine if a hand-off should be performed. The invention of claim 8 provides a method for ordering the cells in the neighbor list and does not delay or hasten a hand-off.

In summary, Kusaka does not teach or suggest a method of prioritizing cells in neighbor lists comprising the steps recited in claim 8.

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In view of the foregoing amendments and remarks, Applicant submits that independent claims 1, 8 and 10 are in condition for allowance. Applicant also submit that dependent claims 2-7 and 9 are in condition for allowance, at least by virtue of their dependency on claims 1 and 8, respectively. Applicant requests the reconsideration and reexamination of this application and the timely allowance of the pending claims. Please charge any fees associated herewith, including extension of time fees, to 50-2117.

Respectfully submitted,
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